CENTRAL
OKLAHOMA
GROTTO
OF THE NATIONAL
SPELEOLOGICAL SOCIETY,INC

C.O.G.nizance

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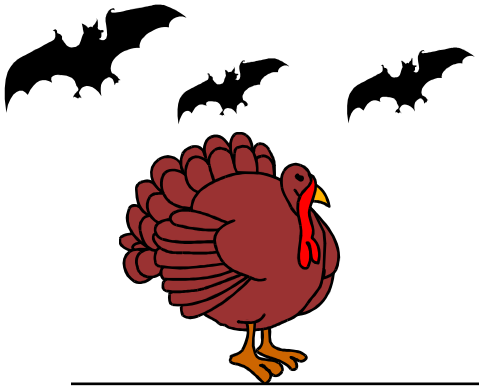
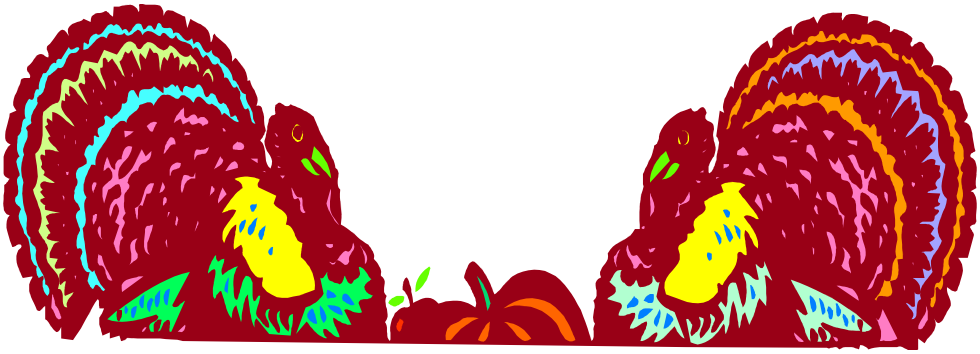
The November meeting of the Central Oklahoma Grotto will be held at the home of Roy and Nicole Diehl at 8:00 p.m. on Friday, November 11, 2005.



November's Meeting is at Roy and Nichole's House



ANNOUNCEMENTS

*Northwest trips are scheduled the third Saturday of every month. Contract Sue or John Bozeman for details.
*Southwest trips are scheduled the first Saturday of every month. Contact Lil Town for details.

*The November meeting will be at the home of Roy and Nicole Diehl, Friday, November 11, at 7:30 in the evening.
*Mark Miller became a new member at the Oct. meeting. His address is 14029 Apache Dr. , Edmond, OK 73013. Welcome to COG!

MINUTES

CENTRAL OKLAHOMA GROTTO

Minutes of the Meeting of the Central Oklahoma Grotto, October 14, 2005

Host: Art Wallace and family Members in attendance, Anne Ault, Sue and John Bozeman, Nicole and Roy Diehl II, John Van Dyke, Steve Beleu
Guests and prospective member: Mark Miller, Edmond
Guest and future member: Cassandra Diehl

Chairman Diehl began the meeting at 8:12

OLD BUSINESS

We decided that we don't need to worry about the miniscule danger of air-borne or bite-born rabies from bats in our caves.

NEW BUSINESS

Sue told us that descendants of The Collins Family, who helped to map Jester Cave in 1968, want to soon have a family fun trip there with us guiding them. Since we have already done two guest-trips to Jester this calendar year, we declined until next year.

TREASURER'S REPORT

John Van Dyke read Treasurer John Talbot's report, which is included in this newsletter.

TRIP REPORTS

We talked about trips to the caves in Arkansas, and to Greene's Cathedral (caving suspended there due to mud-borne water and water-borne mud).
Chairman Diehl ended the meeting at 8:50

TREASURER'S REPORTS

INCOME

Dividend	$ 6.66
Publication Sales	40.25
Dues	36.00
TOTALS	**$ 82.91**

EXPENSES

Equipment Repairs	$131.45
Postage	31.85
TOTAL:	**$163.30**

CASH ON HAND	$ 44.82
CHECKING	$ 487.67
SAVINGS	$ 2.607.42
TOTALS FUNDS AS OF 9/7/05	**$3,139.91**

PREPARED BY TREASURER
JOHN TALBOT

Mark Miller became a member of COG at the October meeting.
His address is
14029 Apache Drive
Edmond, OK 73013
405-749-9664
Mark@advancedacademics.com

WELCOME TO COG!

TRIP REPORTS

Trip Report: Greene's Cathedral
Date: October 15, 2005
Personnel: John & Sue Bozeman, Jon Wolz, & Roy Diehl
Report by Roy Diehl

Four of us went NW this weekend and made an interesting discovery in Greene's Cathedral:

After surveying overland to tie to the survey a couple of sinks that are apparently feeding the system, we entered one (dubbed Mossy Bank)that has tight, but going solutional passage. It is tight, but was mostly dry despite recent heavy rainfall. So, we have some interesting work to do in Greene's regardless of whether the push at Whitetail is too soggy.

What we need are some slender cavers who can schedule a time to help out. We need not-so-slenders, too. If we could get back to the days of having 2 or more parties leap-frogging or working different sections, we could be making some real progress toward finishing the survey of this cave.

Over pizza, we discussed the idea of calling for a "special session" that does not have to be the 3rd weekend of the month, if that would help persons with tight schedules.

If you are interested in helping-out, please respond soon with a date(s) that you can set aside for caving, including our scheduled the 3rd Sat. of Nov. (19th). Perhaps you could check your calendar right now!

ADDITION TO THE TRIP REPORT BY SUE BOZEMAN

While we were waiting for Roy and John to fetch the forgotten tape from the car, Jon and I relaxed in the shade of a couple cedars. Soon, they returned, Roy holding a well-weathered bone. He said he'd picked it up because it had something inside -- red leaves packed into the open end of the old bone. Cow bone, we figured, several years old by the dessicated look of it.

Inside, sure enough, were pieces of what looked like red sumac leaves. Roy pulled it out and it came as a piece -- a tube of sorts. He pulled the tube apart and it separated into pellet like packages. I took one and opened it up, kind of roughly. I had killed what looked like a grub. So, the next package was handled a bit more gently. It was a masterpiece of rolling leaf -- and as you unrolled it, you came to a ball of pollen and then in the next layer, a white larval ... something. Bug, yes, but what was the adult? Anyway, Roy packed them all back in the bone and has it in his classroom, hoping it will mature and we can see what laid those neat eggs.

Meanwhile, I asked Dr. Caire by email -- describing what we'd found. He put me in touch with a professor at UCO, John F. Barthell, who responded quickly. It is probably one of the many leaf cutting bees, Genus Megachile. He offered to look at it. So far, Roy has chosen to keep it in the jar in his classroom --

POTPOURRI

Stalagmite fuels climate debate

By David Whitehouse
Science editor, BBC News website
http://news.bbc.co.uk/1/hi/sci/tech/4636115.stm

A stalagmite from an Alpine cave may indicate that global warming is not as unusual as many think.

Deposits laid down in the stalagmite have enabled a European team to probe past climates confirming a Medieval Warm Period between AD 800 and 1300.

The warm spell is also indicated in some studies of tree-rings, ice-cores and coral reef growth records. Writing in Earth and Planetary Science Letters the researchers suggest that global warming is a natural process.

Other scientists, however, say phenomena such as the Medieval Warm Period become less significant when broad sets of so-called "proxy data" are calibrated and synthesized to give a truly global picture - not just regional ones.

When this is done, they argue, the warming witnessed in the past few decades appears to be very unnatural.

Prolonged, stable record

The latest research was performed by Augusto Mangini and Peter Verdes, of the Heidelberg Academy of Sciences, Germany, and Christop Spötl, of the Institute for Geology and Palaeontology, at the University of Innsbruck, Austria.

(Continued on page 4)

SPA-12 is a 20cm long stalagmite recovered from Spannagel cave in the Central Alps, a remote part of an extensive high-altitude complex of caves extending for at least 10km. At an altitude of almost 2,500m the conditions inside the cave have remained relatively constant for possibly the past 5,000 years and certainly the past 2,000 years. Any changes there have been, the researchers believe, due to long-term changes in climate.

Several factors enabled the team to use SPA-12 to reconstruct the Alpine climate over the past two millennia.

For one, the relatively high radioactive uranium content of the mineral-rich liquid dripping from the roof to form the stalagmite makes it possible to date the time at which the various layers were laid down.

In addition, the stable environment in which SPA-12 has grown makes it relatively straightforward to relate its isotopic composition to the temperature at which various parts of the stalagmite formed.

'Little Ice Age'

SPA-12 also shows evidence of the so-called "Little Ice Age", a temperature dip between roughly 1400 and 1850 when there is complimentary evidence from tree-rings and glacier advances that at least Northern Europe chilled a little.

The long-term changes in temperature as revealed by SPA-12 are at odds with the temperature change profile adopted by the Intergovernmental Panel on Climate Change (IPCC).

The IPCC temperature curve only shows small variations during the last 1,800 years with an abrupt temperature increase after 1860 - the so-called "hockey stick" - which is generally ascribed to the increase of greenhouse gasses in the atmosphere.

But the researchers analyzing SPA-12 say that the stalagmite's temperature record is corroborated by ice-core records from Greenland and sediment deposits on the sea floor near Bermuda, both of which show evidence for a Medieval Warm Period.

The implications of SPA-12 will stoke up what is already an acrimonious debate between global warming skeptics and the scientific "consensus". The latter say the hockey stick profile of recent temperature change is now evident from several studies using different raw data and methodologies. The former argue the present climate is experiencing a natural rebound and that the IPCC should abandon the hockey stick and return to its 1990 position when the existence of the Little Ice Age and the Medieval Warm Period were recognized as more significant climate events.

Editor's note: this is dated, but the information is interesting in case you hadn't seen it. Makes you wonder, maybe there is something to our caves making stuffy heads feel better!

Bacteria Discovered in cave produce potential anti-cancer drug

Copied from American Society for Microbiology

SALT LAKE CITY -- May 20, 2002 -- A bacterium discovered Mammoth Cave in Kentucky produces a substance that may be an effective anti-cancer drug. Researchers from Grand Valley State University report their findings today at the 102nd General Meeting of the American Society for Microbiology.

"We have isolated numerous bacteria from Mammoth Cave in Kentucky. One of these bacteria produces a substance that appears to inhibit the activity of a protein involved in the formation of new blood vessels (angiogenesis). This is significant because, when cancer cells begin to form tumors, one of the requirements is the formation of new blood vessels to provide the tumor with oxygen and nutrients," says Dr. Ryan Frisch, one of the researchers on the study. "One of the strategies in the fight against cancer is to discover drugs that are anti-angiogenic because, if blood vessels are not produced, the tumor does not grow and prosper. These experiments indicate that the substance produced by this bacterium may be a new tool in the fight against cancer."

Human diseases, such as cancer and the increasing number of antibiotic-resistant bacteria, require a constant supply of new drugs for effective treatment, such as tamoxifen and fourth generation fluoroquinolones. Natural product screening represents a major avenue for drug discovery. Based on their structural complexity and wide range of mechanisms of action found among products from nature, natural products are much more diverse and structurally complex than synthetic compounds created by medicinal chemists. The discovery of new drugs from nature is largely contingent on examining previously unscreened organisms, specifically microorganisms. A rich source of uncharacterized organisms are found in new or poorly described ecosystems, such as those found in caves. "We have been examining bacteria isolated from Mammoth Cave, Mammoth Cave National Park, Kentucky, for the production of anti-angiogenesis (anti-cancer) compounds.

One of these organisms is producing a promising product that is active in an assay involving yeast cells. The yeast system is specifically designed to test activity against a protein that is involved in the production of new blood vessels. We are currently trying to

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further characterize the compound and determine the extent of it's activity in other anti-angiogenesis tests," says Frisch.

This release is a summary of a presentation from the 102nd General Meeting of the American Society for Microbiology, May 19-23, 2002, in Salt Lake City, Utah. Additional information on these and other presentations at the 102nd ASM General Meeting can be found online at http://www.asmusa.org/pcsrc/gm2002/presskit.htm or by contacting Jim Sliwa (jsliwa@asmusa.org) in the ASM Office of Communications. The phone number for the General Meeting Press Room is (801) 534-4720 and will be active from 10:00 a.m. MDT, May 19 until 12:00 noon MDT, May 23.

An Oklahoma Wonder

Written by Tanner C. Latham
Copied from **Southern Living**, June 2005; pages 4-5

As the sun's setting paints a brilliant blush-and-lavender backdrop, bats begin trickling from the cave like slow drops from a faucet. The soft whir grows to a steady flapping, and soon the column grows, resembling a winding ribbon of black smoke. Tonight we watch intently as I million Mexican free-tailed bats escape to the sky to feed their tiny, hungry bellies. When they tuck themselves back into the cave tomorrow morning, the northwestern Oklahoma prairie will be 10 tons of insects freer.

Getting Familiar With the Terrain

Located south of the town of Freedom and just west of Alabaster Caverns State Park, the Selman Bat Cave Wildlife Management Area is home to one of the largest maternity colonies of Mexican free-tailed bats in the state. In May, 500,000 pregnant bats migrate to the cave where each gives birth to a single pup in June.

The Oklahoma Department of Wildlife Conservation begins leading tours here in July, when the moms and pups are most active. While the bats headline this show, the tour includes a half-mile nature trail hike. Volunteer guides explain the diversity of the wildlife and vegetation in this part of the state.

The Bat Stream

Our first impression of the mass exodus is the flying stars appear to lack grace, fluttering about in all directions. "They look like they're flying off balance." says volunteer guide Barbara Kiespert, apparently reading our minds. "But that's because they're using their tails to catch insects." With incredible acrobatics, they scoop up the insects in their tail membranes and flip them into their mouths. Each bat has to eat at least 50% of its body weight in one night in order to survive.

We recognize the pups easily because they are a darker color than their mothers, and they don't fly but swirl, as wobbly as a new colt on her legs, Barbara convinces us to rub our hands together, mimicking the sounds of moths. A few baby bats curiously swoop down close enough for us to get a good look at these intriguing creatures.

"I've been here six years, and each night is as fascinating as it was the first time I came out," says Barbara.

Cactus, Mesquite, Red Dirt

Written by Steve Beleu

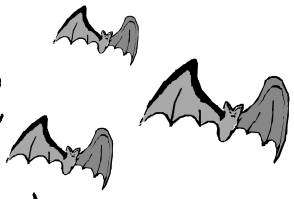
Mesquite and cactus compete in these red hills,
Colonizing the low areas first then working
From the base of the hills to their flat tops
As sprawling forests of mesquite and cactus
Attempt to overwhelm and choke each other.

Not even red cedars have made a foothold here
Although their steady march everywhere else
Seems to pull our red dirt itself out of the ground
Up into and through their widely spreading branches.

Between battalions of cactus and mesquite
That struggle to encircle and annihilate each other
Are red sandstones and clay and petrified wood.
In the creek beds, dry now and dry most months,
Bones of mastodons are carved from the red soil
After eons of erosion. And here beneath our feet
Is what we search for: sinkholes leading down
Beneath these ridges topped by white gypsum
Winding and spiraling down underneath our feet.
Soon we will be there beneath this quiet struggle.
There we will be warm enough in the cold winter
And cool enough during the hottest summer.

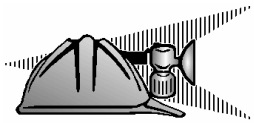
Central Oklahoma Grotto is a non-profit organization and a chapter of the NSS (National Speleological Society), Cave Avenue, Huntsville, AL., 35810. Dedicated to cave conservation and safety, C.O.G. published general information in a monthly newsletter ($6.00/year) and detailed cave surveys and related Speleological items in a yearly publication, *The Oklahoma Underground* ($3-$8/issue) Membership is by sponsor and is $12 per year for adults, $6 for spouses and students, and $3 if under 18. Central Oklahoma Grotto meets once a month on the second Friday of each month. For information, write 3208 Gettysburg Dr., Altus, Oklahoma, 73521. All submissions to the newsletter should be sent to the editor: Lil or Dale Town, 3208 Gettysburg Dr., Altus, OK 73521: Telephone: (580)477-4027: E-mail: oklmt@cableone.net. The deadline for submissions for any particular month's issue is the 20th day of the previous month. If you wish material returned. Please include a SASE with submission. All materials in this newsletter is available for reproduction, provided proper credit is given with the article when you print it. Trade publications are welcomed. *Cave softly and safely!*

Don't forget to come to the



November meeting at the Diehl's house,

Friday, November 11.



Central Oklahoma Grotto
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